

Please amend the application as follows:

IN THE CLAIMS:

1. (Amended) A VCSEL having improved diffraction loss, comprising:

a series of deposited material layers comprising the structure of said VCSEL, and a portion of the series of deposited materials layers comprising a gain region with said VCSEL; and an intracavity lens formed in said gain region, and intracavity lens extending across at least a central portion of said gain region ~~one of said series of deposited material layers.~~

2. (Amended) A VCSEL according to claim 1 wherein ~~one of said series of deposited material layers~~ said gain region comprises a superlattice structure, with an adjacent region being subjected to ion implantation and rapid thermal annealing so as to disorder the superlattice structure and change its index of refraction, whereby to create said intracavity lens.

3. (Amended) A VCSEL according to claim 2 wherein said series of deposited material layers comprises:

a bottom mirror deposited on the top of a substrate;  
a bottom spacer deposited on the top of said bottom mirror;  
~~a~~said gain region deposited on the top of said bottom spacer;  
a top spacer deposited on the top of said gain region; and  
a top mirror deposited on the top of said top spacer, such that a reflective cavity is formed between said bottom mirror and said top mirror;  
~~with said intracavity lens being formed in at least one of said bottom mirror, bottom spacer, gain region, top spacer and top mirror.~~

Remarks

In the outstanding Official Action, the Examiner:

- (1) acknowledged Applicants' election of Group 1, claims 1-11, drawn to a VCSEL;
- (2) rejected claim 1 under 35 USC 102(b) as being anticipated by Jewell;
- (3) rejected claims 1 and 2 under 35 USC 102(b) as being anticipated by Fukuzawa et al.;